TEREPHTHALAMIDINE

NSC - 57155

* 4HCI

Chemical Name:

N,N''-Bis [4-imino-(methylamino)methyl]phenyl]-1,4-benzenedicarboximidamide, tetrahydrochloride

CAS Registry Number: 2053-23-8

Other Names: Symetamine

| Molecular Formula: $C_{24}H_{26}N_{8}$:4HCl M.W.: 5 | Cl M.W.: 572.4 | Molecular Formula: C ₂₄ H ₂₆ N ₈ ·4HCl |
|--|-----------------------|---|
|--|-----------------------|---|

Approximate Solubility: (mg/mL)

| Water | > 10.9 |
|-------------------|-----------|
| Buffer, pH 4 | > 10.5 |
| Buffer, pH 9 | 2.1 - 2.7 |
| Dimethylacetamide | < 0.8 |
| Ethanol | < 0.7 |

| DMSO | > 11.1 |
|---------------|--------|
| Chloroform | < 0.7 |
| Ethyl acetate | < 0.7 |
| t-BuOH | < 0.7 |

Stability:

Bulk:

Test samples stored for 3 months at 25 °C under light and dark conditions and at 50 °C under dark conditions showed no degradation (HPLC).

Solution:

A test sample (20 mg/mL water) exhibited no significant degradation after 48 hr at 25 °C under light (HPLC).

Ultraviolet Absorption:

(water)

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| ~ _{max} | E |
|------------------------|-----------------|
| 244 ± 2 nm | 27,500 - 35,900 |
| $254 \pm 2 \text{ nm}$ | 26,700 - 33,750 |

High Performance Liquid Chromatography:

| Column: | Zorbax RX (C ₈), 250 x 4.6 mm i.d. |
|---------|--|
|---------|--|

Mobile Phase: 1% methanol in water containing 0.05M KH₂PO₄, pH adjusted to 3.75 with phosphoric acid.

Flow Rate:

1.5 mL/min

Detection:

UV at 254 nm

Sample Preparation: Sample is dissolved in reagent grade water to give a concentration of ≈ 0.8

mg/mL and 0.6 mg/mL Internal

Standard.

Internal Standard:

Thymine

Retention Volume:

8.0 mL (NSC 57155)

14.4 mL (I.S.)